US ERA ARCHIVE DOCUMENT

U.S. ENVIRONMENTAL PROTECTION AGENCY POLLUTION/SITUATION REPORT

Kalamazoo River/Enbridge Spill - Removal POLREP-SITREP



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Region V



Subject: SITREP #28

Kalamazoo River/Enbridge Spill

Z5JS

Marshall, MI

Latitude: 42.2395273 Longitude: -84.9662018

To: Lt. Paul Baker, Kalamazoo County Sheriff's Office

James Rutherford, Calhoun County Public Health Department Durk Dunham, Calhoun County Emergency Management

F/LT Bonnie Kanicki-Wilson, Michigan State Police, Emergency Mgt.

Greg Danneffel, MDNRE

Mike McKenzie, City of Battle Creek

Leon Zupan, Enbridge

Susan Hedman, U.S. EPA Regional Administrator

Rebecca Humphries, MDNRE

Jim Sygo, MDNRE

Connie Gibson, Calhoun County Sheriffs Office

Cheryl Vosburg, City of Marshall

David Chung, U.S. EPA Jason El-Zein, U.S. EPA

Duty Officer, NRC

Michael Chezik, U.S. Department of Interior

Linda Nachowicz, U.S. EPA OSLTF USCG, USCG

Jill Slaght, 7th District of Michigan Ken Brock, 7th District of Michigan

Bruce Vanotteren, MDNRE

Brian Pierzina, PHMSA Central Region Thomas Hemminger, USCG Grand Haven

Ronna Beckmann, U.S. EPA

Scott Corbin, Allegan County EMA Director

From: Jeff Kimble, U.S. EPA Incident Commander

Stephen Wolfe, U.S. EPA On-Scene Coordinator Mark Durno, U.S. EPA Deputy Incident Commander

Date: 08/22/10

Reporting Period: 1900 hours 08/21/10 to 1900 hours 08/22/10

1. Introduction

1.1 Background

1.1.1 Site History

Background Information

Site Number: Z5JS Contract Number: D.O. Number: Action Memo Date:

Response Authority: OPAResponse Type:EmergencyResponse Lead:PRPIncident Category:Removal Action

NPL Status: Non NPL **Operable Unit:**

Mobilization Date: 7/26/2010 **Start Date:** 7/26/2010

Demob Date: Completion Date:

CERCLIS ID: RCRIS ID:

ERNS No.: State Notification:

FPN#: E10527 Reimbursable Account

1.1.2 Incident Category

Emergency Response -- Pipeline Rupture

1.1.3 Site Description

A 30-inch pipeline ruptured, releasing crude oil (NRC report of 19,500 barrels) into a culvert leading to Talmadge Creek. Talmadge Creek is a tributary to the Kalamazoo River. The response site is along Talmadge Creek and the Kalamazoo River running from Marshall, Michigan, to downstream of Battle Creek, Michigan. The Kalamazoo River is bordered by marshland and developed properties for the approximate 30-mile stretch of the response site.

1.1.4 Preliminary Removal Assessment/Removal Site Inspection Results

Approximately 30 miles of the Kalamazoo River have been impacted. The Kalamazoo River experienced flooding before and after the spill. The river levels later fell and stranded oil in some backwaters, wetlands and floodplains. Talmadge Creek was boomed off at the confluence to the Kalamazoo River. Containment and absorbent boom were deployed along the Kalamazoo River and Talmadge Creek. Containment and absorbent boom also were deployed in Morrow Lake.

1.1.5 Enforcement Activities, Identity of Potentially Responsible Parties

Enbridge is the RP.

On July 27, 2010, EPA issued an Administrative Order under section 311(c) of the Clean Water Act to Enbridge. Enbridge has submitted and EPA has approved the following deliverables required by the Order including but not limited to: *Operational Health and Safety Plan*; *Pipeline Repair Workplan*; *Sampling and Analysis Plan*; *Quality Assurance*

Project Plan; Oil Containment and Recovery Plan; Source Area Remediation Plan; Remediation Plan for Downstream Impacted Areas; and Waste Treatment, Transportation, and Disposal Plan.

1.2 Incident Objectives and Command Emphasis

Incident Objectives

- 1) Ensure health and safety of the public and response & recovery personnel.
- 2) Maintain the isolation of Talmadge Creek and Kalamazoo River from the source area.
- 3) Contain and recover oil and contaminated vegetation in Talmadge Creek and Kalamazoo River.
- 4) Maintain effective unified communications with cooperating & assisting agencies and the public.
- 5) Perform remediation & restoration of all affected public & private areas of river & river systems.
- 6) Provide protection of environmentally and culturally sensitive areas including wildlife and historic properties.
- 7) Protect threatened and endangered species & continue to recover & rehabilitate injured wildlife.
- 8) Maintain Joint Information Center function.
- 9) Continue to collect, coordinate, manage and communicate environmental and public health data.
- 10) Obtain input from multi-agency Science Team to help establish protocols to guide cleanup of environmentally impacted areas.

Command Emphasis

- 1) Implement operations metrics display in all situations and operations updates to UC.
- 2) Enbridge to maintain primary responsibility for planning cycle and IAP development:
 - Monitor effectiveness of IAP briefing and use by Operations; and
 - Continue transition of IAP development from EPA to Enbridge.
- 3) Concentrate resources for river, shore, and floodplain cleanup and sheen management in Division C, with emphasis on increased overall work efficiencies.
- 4) SCAT update on entire river system.
- 5) Review SCAT recommendations with Science Team, with emphasis on Division C, to coordinate near-term cleanup efforts.
- 6) Re-evaluate and enhance current, continuous, comprehensive subsurface monitoring in the Kalamazoo River and at Morrow Lake.

1.3 Strategic Considerations

- 1) Increase emphasis on improving overall work efficiencies.
- 2) Continue shift of monitoring resources (air, water, sediment) and analytical resources from EPA to Enbridge.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

The response site extends from the pipeline break to the dam at the end of Morrow Lake. Operationally, the response has been divided into two Oil Recovery and Cleanup Branches: East and West. These branches have been geographically divided into five Divisions, A through E, with Division A starting at the pipeline break and Division E ending at the western edge of Morrow Lake (see attached figure). The East Branch includes Divisions A and B and the West Branch includes Divisions C, D and E. Division C is currently an area of command emphasis and has been further subdivided into four groups performing similar response activities in order to accelerate cleanup progress in that Division. Certain control points are denoted by division letter then control point number (i.e., C3 refers to control point three within Division C). Additionally the entire length of the site is now divided into one-quarter mile sections.

The Unified Command organizational charts (ICS 207 forms) are presented in Figures 1-4. The ICS 207 Forms describe in detail the work breakdown structure for the response action.

The following activities occurred during the reporting period from 1900 hours on August 21 to 1900 hours on August 22, 2010:

Division A

Division A has extended into the upstream portion of Division B (to the upstream side of location B2) since the operations required there are more similar to those in Division A than Division B.

Enbridge

Enbridge reported that it continued skimming oil as well as excavating, backfilling, and dewatering the oil containment within Division A. SCAT operations, soil scraping and hand-digging of hotspots continued within Division A. Silt fence was repaired at Talmadge Creek.

EPA

EPA observed Enbridge ongoing backfilling operations. EPA observed Enbridge's continuing dewatering and excavation efforts. Excavation of hotspots continues. EPA observed hydrostatic testing of the pipe continues.

Division B

Enbridge

Enbridge reported that it continued oil collection at boom containment sites and replaced contaminated boom as required. Two-wheeled and four-wheeled skimmers were sent for decontamination in Division B. Enbridge coordinated with Barr Engineering to obtain approval for installing a mat road through a contaminated march in Location B3 which needs scraping. Crews worked on chipping and scraping of oiled bank vegetation and soil along Talmadge Creek.

EPA

EPA observed continued skimming operations. EPA night operations noted visible oil between Location B4 to Location B5 where booms, swamp mats and pom-poms were missing. EPA inquired of Enbridge staff as to why booms and mats were removed but did not receive a definitive answer. EPA and START continued collected turbidity data during bank excavation along Talmadge Creek. Approximately 2,200 feet of silt fence was placed along Talmadge Creek was completed along the west side of I-69 (to Road Mile 15.5) to approximately Location B4.4. Bank excavation west of I-69 progressed west of Location B4.5 by about 300 feet.

Odor persisted in most of Division B and was noticeably worse between Location B4.5 and Location B4.7.

FOBs noted crews utilizing gasoline powered leaf blowers to direct product towards vacuum truck located on the shore. Safety was notified of this potential safety concern. Additionally, FOBs noted at Location B2 pools of product forming under the wooden road.

Division C

Enbridge

Enbridge reported that it is standing up a new boom deployment site. Enbridge reported that it maintained boom and replaced absorbents, sweep and snare. Additionally, Enbridge reported that oil collection was going well through the use of two catch basins.

EPA

EPA observed Enbridge performing boom maintenance, vegetation removal, snare boom and pad replacement and shoreline and vegetation washing. EPA noted oil pooled above Cresco Dam and requested removal of the oil. EPA noted vegetation washing without downstream boom placement. The Enbridge operations supervisor was notified. An Enbridge contractor was observed smoking during work activities in Group 3 (MP 10 to MP 12). Contractor's foreman notified. On shore oil pools are being marked so that off shore oil removal teams can address. USCG received a complaint of oil in the marsh area which EPA forwarded to Enbridge for action. No oil was observed inside of the marsh area or along the shore.

Division D

Enbridge

Enbridge reported that boom maintenance, vegetation removal, and skimming operations continued.

EPA

EPA observed boom maintenance activities and the collection of oiled debris and vegetation. Oil sheen was visible floating downstream of Location D5 (Custer Street Bridge).

Division E

Enbridge

Enbridge reported cutting vegetation and removing debris today. Enbridge set up decontamination for boats and will begin using E2 for boat launching. Enbridge reported deploying more silt fence in Location E4 and investigating Morrow Lake for sheen and tar balls.

EPA

EPA observed oil collection operations conducted in Division E. Enbridge SCAT tentatively selected a location for second line of gabion boxes at Location E0.5.

Branch Operations

In addition to the East and West Recovery Branches, EPA, USCG and Enbridge Operations have five Branches that conduct activities in all Divisions: DECON, Environmental Compliance and Oversight; Monitoring; Wildlife Environmental/Damage Assessment; and Air Ops.

Environmental Compliance and Oversight Branch

Enbridge reported they provided oversight for cleanup activities within Divisions A, B and C.

EPA observed sampling of contaminated soil, air monitoring, surface water, and debris. Air monitoring in Division B indicated a high benzene reading (noted in Division B Section).

DECON Branch

Enbridge

Enbridge submitted a decontamination plan and report that approval of that plan is awaiting review by two more groups. Approval is now anticipated by the end of the day (August 22st, 2010).

EPA

EPA reviewed the draft decontamination plan and provided comments to Enbridge.

Monitoring Branch

Enbridge

Enbridge reported that they collected 30 surface water samples, 15 potable water samples, and 1 sediment sample. The air sampling program continues to collect 24-hour grab samples, summa mini-can samples, grab samples, and passive dosimeter samples in addition to the real-time air monitoring samples.

Enbridge reported that its air sampling program continued to focus around Baker Estates mobile home park, the Ceresco Dam, and the leak site.

EPA

EPA conducted continued air monitoring in all divisions. Tedlar bag air samples were collected in the 11 grid areas of Division B exposure units and in the five focus areas (Daycare Center, Baker Estates, Frac Tank Storage Area, Squaw Creek and Ceresco Dam). EPA conducted air monitoring in response to an odor complaint. EPA observed the Enbridge air monitoring crew in Divisions B and C. Tedlar bag sampling results were below 1 ppbv for benzene in response to the air monitoring results at Location B4.

EPA collected the following monitoring samples:

Media	Sample Type	Number collected
Air	Summa Canister	0
Air	Tedlar Bags	31
Air	Monitoring Samples	429
Surface Water	Grab	2
Sediment	Grab	0

During this operational period SCAT teams continued shoreline and over bank oiling analysis in sections between Location C2.25 to Locations C3.25.

Wildlife Damage Assessment Branch

USFWS worked with the Wildlife Branch to address oil-impacted wildlife. The wildlife center continued to receive oiled animals collected along the Kalamazoo River. There are 186 animals in live care, the majority of which are Canada Geese and turtles. An oiled beaver was trapped by USDA and USFWS arranged for a professional beaver trapper to bring the beaver to the rehabilitation center. A total of 245 animals have been rehabilitated and released.

Air Ops Branch

Enbridge

Enbridge flew 8 over-flights yesterday and reported observing broken sheen in a boomed area above Morrow Lake and no visible sheen on Morrow Lake.

EPA

EPA conducted one over-flight of the river. Observations made during over-flights are reported at the daily situational briefings.

2.1.2 Progress Metrics

All progress metrics in Section 2.1.2 are as reported by Enbridge unless otherwise indicated.

Boom Report

Number of Locations	41	
Boom Deployed (feet)	170,482*	

Note: Since the transition of EPA's contractor's to Enbridge at 1900 hrs on 08/12/10, all boom is now controlled by Enbridge.

Waste Tracking

Waste Stream	Quantity Shipped 8/20/2010	Cumulative Quantity Shipped*	Quantity On-Site Awaiting Disposal*
Soil 1	840 yd ³	$12,379 \text{ yd}^3$	$19,075 \text{ yd}^3$
Debris ²	875 yd ³	8325 yd ³	NA
Untreated Water ³	30,000 gallons		
Pre-treated Water ⁴	0 gallons		
Oily Water (Griffith, IN)	180,800 gallons		

* Information for water (other than daily quantity shipped) is reported in other tables below. Quantity awaiting disposal is estimated.

NA – Not provided by Enbridge

- 1. Benzene-impacted soil is being sent to Envirosafe.
- 2. Roll-off boxes containing waste sorbents, boom, pads, plastic, PPE, and oiled vegetation and biomass are being sent to Michigan Disposal.
- 3. Untreated water (hazardous waste) is being sent to Dynecol.
- 4. Pre-treated water is being sent to the Battle Creek POTW.

Oily Water Recovery Tracking

Note: Some of the values in the tables below have been audited and reconciled by Enbridge and may not correlate with previously reported values.

Oily Water Collected by Location		
Location	Cumulative Total Collected	
Location	(gallons)	
Division A	4,042,281	
Division B	2,610,825	
Division C	737,900	
Division D	117,825	
Division E	43,750	
Undetermined	109,200	
TOTAL	7,661,781	

^{*}as of 8/22/10 07:00

Oily Water Shipped Off-Site			
Oily Water Leaving Site	Cumulative Quantity Shipped (gallons)		
Untreated Water (Haz Waste)	Dynecol, Detroit MI	1,499,225	
Pre-treated Water	Battle Creek POTW	1,968,700	
Oily Water	RP facility, Griffith IN	2,076,000	
	TOTAL	5,543,925	

Oily Water Volume Summary		
(gallons)		
Oily Water Collected	7,661,781	
Oily Water Shipped Off-	5,543,925	
site		
OILY WATER	2,117,856	
REMAINING ON-SITE		

Oil-Water Separation at Griffith IN Facility (gallons)		
Oil	633,000	
Water	1,443,000	
TOTAL	2,076,000	

2.2 Planning Section

The ENVL Countermeasures expert observed and videotaped gabion baskets deployment and discussed countermeasure techniques with Ops and Technical Services Group. Additionally, the ENVL discussed subsurface sampling stratagies with Ops.

2.2.1 Anticipated Activities for Next Reporting Period

In the next operational period, Operations anticipates performing the same or similar activities as in the previous operational period, with a focus on activities in Division C.

2.2.2 Issues

There was no Public Health Unit meeting today and Tedlar bags submitted for analysis showed no detections for benzene.

2.3 Logistics Section

EPA Logistics continued planning the ICP relocation with the Enbridge Move Team to the new ICP location at 1601 Pratt Avenue, Marshall, Michigan. EPA monitored construction progress. Boardwalk construction is complete. Lavatory needs plumbing work for low water pressure. EPA revised site traffic pattern to address pedestrian safety issues. Accompanied EPA Safety Officer for safety walk through and reviewed his recommendations with Enbridge FACL. Pushed move information flow to ICP staff and managers. Installation of the information technology wiring is on-going.

2.4 Finance Section

The current NPFC issued ceiling is \$13 million. Approximately 89.0% of the ceiling has been spent through August 21, 2010, with a burn rate of \$349, 935 per day. These cost summaries reflect only EPA-funded expenditures for the incident.

FPN E10527 - Enbridge Pipeline Oil Spill 8/21/2010

ERRS Contractors		Est. Expended	Est Burn Rate (Lastest Daily)
EQM (EPS50802)	T057	\$1,288,393	\$1,500
	T060	166,500	18,500
LATA (EPS50804)		1,451,396	, 0
ER LLC (EPS50905)		723,669	0
ERRS Contractors		\$3,629,958	\$20,000
START Contractor			
WESTON (EPS50604)		3,119,226	139,697
Response Contractor Sub-	_	-, -, -	
Totals		\$6,749,184	\$159,697
EPA Funded Costs:			
Total EPA Costs		2,152,953	106,576
Pollution Removal Funding			
Agreements:			
US			
FWS		271,320	8,560
Total Other Agencies		\$1,234,032	\$40,284
Sub-Totals		\$10,136,169	\$306,557
Indirect Cost (14.15%)		1,434,268	43,378
Total Est. Oil Spill Cost	_	\$11,570,437	\$349,935
Oil Spill Coiling authorized by U	ISCC.	\$12,000,000	
Oil Spill Ceiling authorized by U Oil Spill Ceiling Available	_	\$13,000,000	
Balance		\$1,429,563	
Fat Daysouts			
Est. Percentage		89.0%	
Spent		89.0%	

2.5 Safety Officer

One minor first aid injury was reported overnight. No significant issues were reported during day operations.

2.6 Liaison Officer

The LNO reported no activity.

2.7 Information Officer

PIO/Community Involvement staff prepared for the move of the ICP.

EPA PIO staff, along with Calhoun County Health occupied a table at the Calhoun County Fair, distributing Enbridge Oil Spill information via FAQ fact sheets and EPA giveaway items. Various individuals showed their interest in the EPA's efforts. The overall response was positive.

JIC staff operated the media inquiry line and performed media monitoring.

Media Inquiry Line (888-363-8632)

Calls received during reporting period: One

A call regarding the availability of a bird snare from the Lansing Zoo was forwarded to the Michigan DNR.

Enbridge reported the following call volume and community center visits:

Oil Spill Public Information Hotline (800-306-6837)

Calls received during reporting period: 46

Community Center Visits: 14

Visits by location during reporting period:

Battle Creek 6 Marshall 8

Enbridge reported that it received three inquiries from its www.response.enbridgeUS.com website.

2.8 Response Actions to Date

Recovery of oil and contaminated soil and debris continues. Containment boom, sorbent boom, skimming equipment, vacuum trucks and other equipment has been used to support oil collection and removal along Talmadge Creek and the Kalamazoo River. Contaminated soils are being excavated from Divisions A and B. Replacement of the

damaged pipeline and stabilization of the excavation are progressing. Contaminated shoreline vegetation along the creek and river is being cleaned or removed to control sheen. Recovered materials are being handled on-site and prepared for off-site transport. Tanker trucks are transporting the recovered oil to a facility owned by the RP with available storage in Griffith, Indiana. Oil-contaminated soils and other materials are being transported off-site for disposal.

EPA, ERT, START and RP contractors, with the support of the ERT Mobile Lab and Michigan National Guard Civil Support Team, have monitored and sampled air quality along the river and throughout multiple residential areas. A heavy emphasis was placed on specific monitoring for benzene as it is a recognized contaminant of concern for this response.

Water samples were collected for analysis from surface water, river and lake water columns, as well as private drinking wells along the length of the impacted areas of the Kalamazoo River. Water samples were also collected downstream of the Morrow Lake Dam. Validated analytical sampling results are now being posted to the public incident website (http://www.epa.gov/enbridgespill/data/datawater.html).

Enbridge removed the affected area of pipe, followed the cut out/repair plan, and completed a pipe investigation (50 feet upstream and downstream of the cut points) on August 7, 2010. The affected length of pipe has been repaired but is not yet operational.

A voluntary evacuation was issued by CCPH, in consultation with MDCH and ATSDR, for several residences located immediately downstream of the spill site along Talmadge Creek, up to its confluence with the Kalamazoo River. This voluntary evacuation was based on review of air monitoring results for benzene around oil collection areas. On August 16, 2010, CCPH lifted the recommended evacuation for the northwest portion of the voluntary evacuation zone after air monitoring and sampling results showed benzene levels below established action levels. On August 18, 2010, air sampling results for the remaining evacuation zone areas confirmed that benzene levels were below action levels allowing for re-occupancy. The Calhoun County Health Department worked on notifying residents.

Contingency Plans have been developed for several areas downstream of Morrow Lake, including Lake Michigan, in the case oil moves past the Morrow Lake Dam.

On August 17, 2010, EPA approved the following revised plans submitted by Enbridge: *Remediation Plan for Downstream Impacted Areas, Source Area Remediation Plan, Quality Assurance Project Plan* and *Sampling and Analysis Plan*. All plans submitted by Enbridge as required by the July 27, 2010, Administrative Order have now been approved.

3. Participating Entities 3.1 Unified Command

U.S. EPA Calhoun County Public Health

MDNRE Department

Michigan State Police Emergency Calhoun County Emergency

Management Division

Management

City of Battle Creek Kalamazoo County Sheriff

Enbridge (Responsible Party)

Cooperating and Assisting Agencies Cooperating Agencies

51st Civil Support Team Michigan Marshall Area Firefighters Ambulance

National Guard Authority

ATSDR Marshall Police Department

Allegan County Emergency Marshall Township Government and

Management Fire Department

American Red Cross Michigan Department of Agriculture

Calhoun Conservation District MDCH
Calhoun County Commission MIOSHA

City of Kalamazoo National Transportation Safety Board

City of Marshall Natural Resource Group

Emmett Township NOAA

Federal Energy Regulatory Commission Oakland County HAZMAT

Fredonia Township OSHA

Kalamazoo County Office of Emergency PHMSA

Management USCG

Kalamazoo River Watershed Council U.S. Department of the Interior/USGS

USFWS

3.3 Congressional Presence

State Representative Jase Bolger State Representative Tanya Schuitmaker

State Representative Kate Segal State Senator Mike Nofs

State Representative Ken Kurtz U.S. Congressman Mark Schauer

State Representative Phil Browne U.S. Senator Carl Levin

State Representative Phyllis Browne U.S. Senator Debbie Stabenow

State Representative Bob Geuctk

4. Personnel On Site

4. I crodiffer Off Site	
	Numbers
Agency/Entity	Reported
EPA	52
START	80
Calhoun County	
Public Health Dept.	1
(CCPH)	
Calhoun County (CC)	6
Sheriff	o o
City of Battle Creek	3
Kalamazoo Sherif	2
MDA	0
MDCH	0
MDNRE	11
Michigan State Police	7
(MSP)	/
NOAA - National	2
Weather Service	2
NOAA- NRDA	1
USCG	12
USDA	2
USFWS	11
USFWS Contractors	2
Enbridge	24
Enbridge Contractors	1281
Total	1497

EPA ARCHIVE DOCUMENT

5. Definition of Terms

ATSDR Agency for Toxic Substances and Disease Registry

CCPH Calhoun County Public Health
CIC Community Involvement Coordinator

DMU Data Management Unit

EMT Emergency Medical Technician
ENVL Environmental Unit Leader
EPA Environmental Protection Agency
ERRS Emergency and Rapid Response Services

ERT Emergency Response Team

EU Environmental Unit

GLNPO Great Lakes National Program Office

H2S Hydrogen Sulfide
HASP Health and Safety Plan
IAP Incident Action Plan
IC Incident Commander
ICP Incident Command Post

IN Indiana

JIC Joint Information Center LEL Lower Explosive Limit

LNO Liaison Officer

LSC Logistics Section Chief

MDA Michigan Department of Agriculture
MDCH Michigan Department of Community Health
MDMB Michigan Department of Management and Budget

MDNRE Michigan Department of Natural Resources and Environment

MI Michigan

MIOSHA Michigan Occupational Safety and Health Administration

MP Mile Post

NRC National Response Center

NOAA National Oceanic and Atmospheric Administration

NPFC National Pollution Fund Center

OSHA Occupational Safety and Health Administration
PHMSA Pipeline and Hazardous Materials Administration

PIO Public Information Officer
PPE Personal Protective Equipment

ppm Parts Per Million

POTW Publicly Owned Treatment Works QA/QC Quality Assurance/Quality Control

RP Responsible Party

SCAT Shoreline Contamination Assessment Team

START Superfund Technical Assessment and Response Team

T&D Transfer and Disposal UC Unified Command

USDA United States Department of Agriculture

USCG United States Coast Guard

USDOT United States Department of Transportation
U.S. EPA United States Environmental Protection Agency

USFWS United States Fish and Wildlife Service

yd³ Cubic Yards

VOCs Volatile Organic Compounds

6.0 Source of Additional Information

6.1 Additional Information

For additional information please refer to http://www.epa.gov/enbridgespill.html. For sampling analysis data, please see http://www.epa.gov/enbridgespill/data/datawater.html.

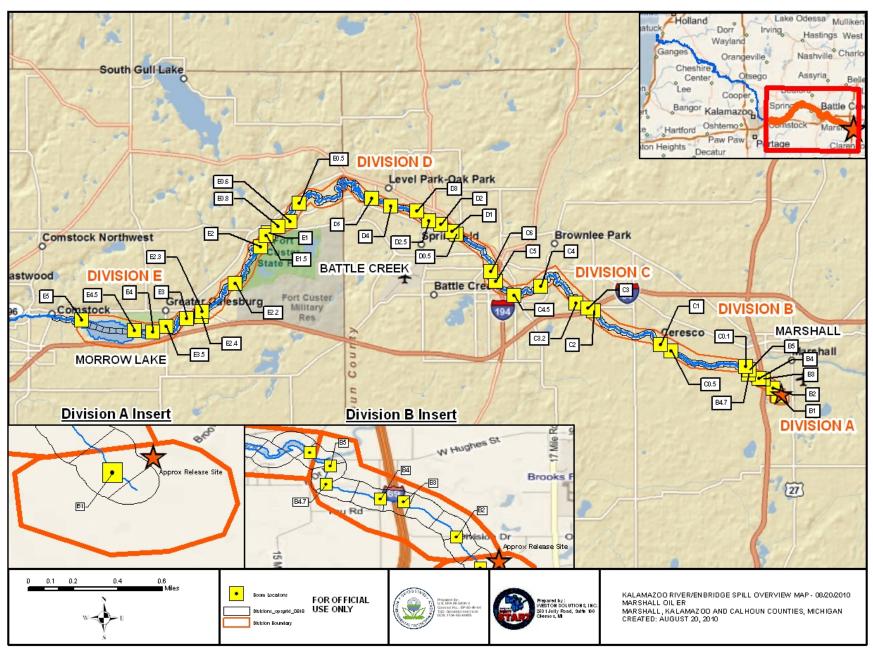
6.2 Reporting Schedule

SITREPs have been created daily and will continue until the UC establishes a different reporting schedule, in conjunction with the planning cycle.

7.0 Situational Reference Materials

See attached Map, entitled "Kalamazoo River/Enbridge Spill Overview Map," for more information.

See attached Unified Command Organizational Charts (ICS 207) entitled, "Enbridge Pipelines Response Unified Command", "Planning Section", "Operations", and "Division C."



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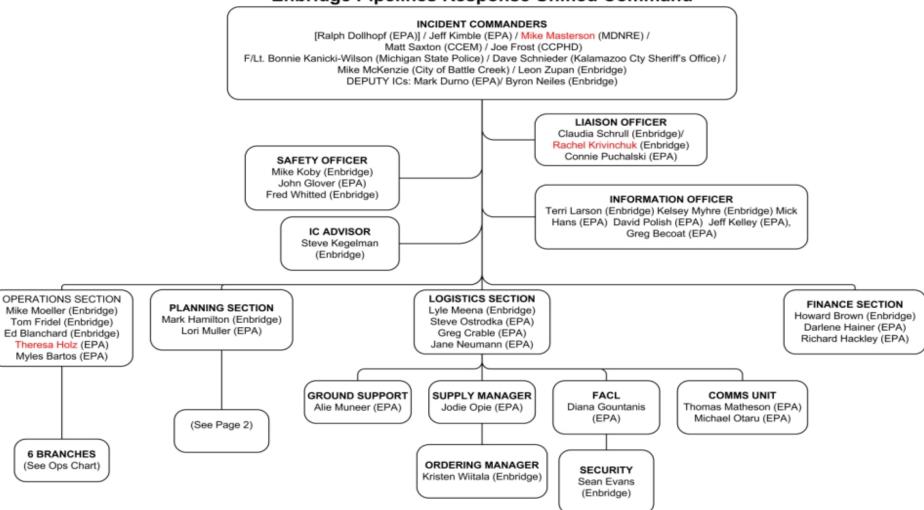






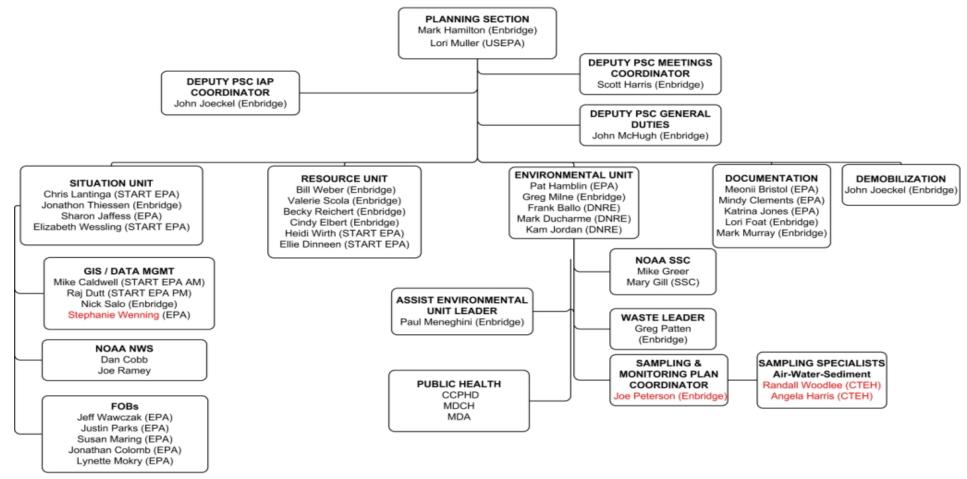


Enbridge Pipelines Response Unified Command





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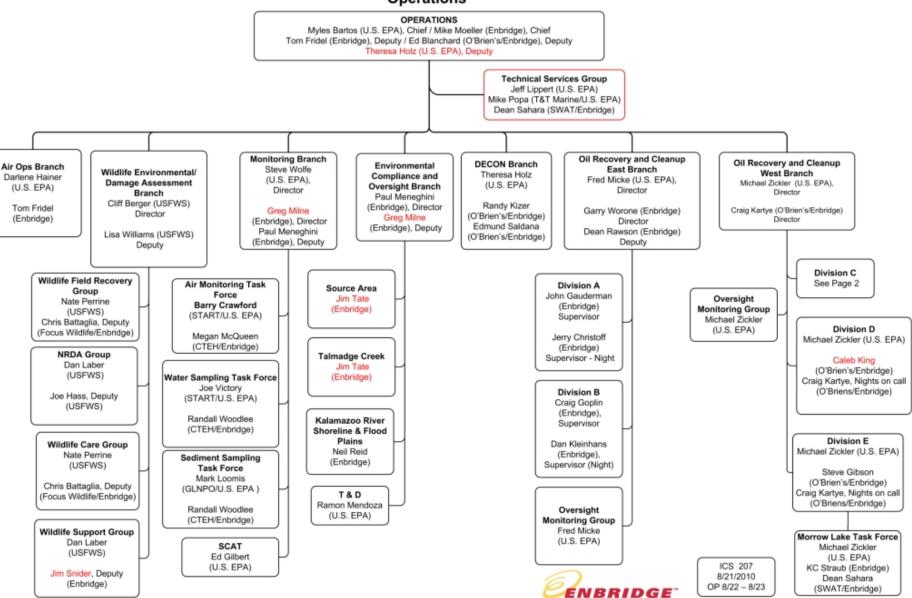


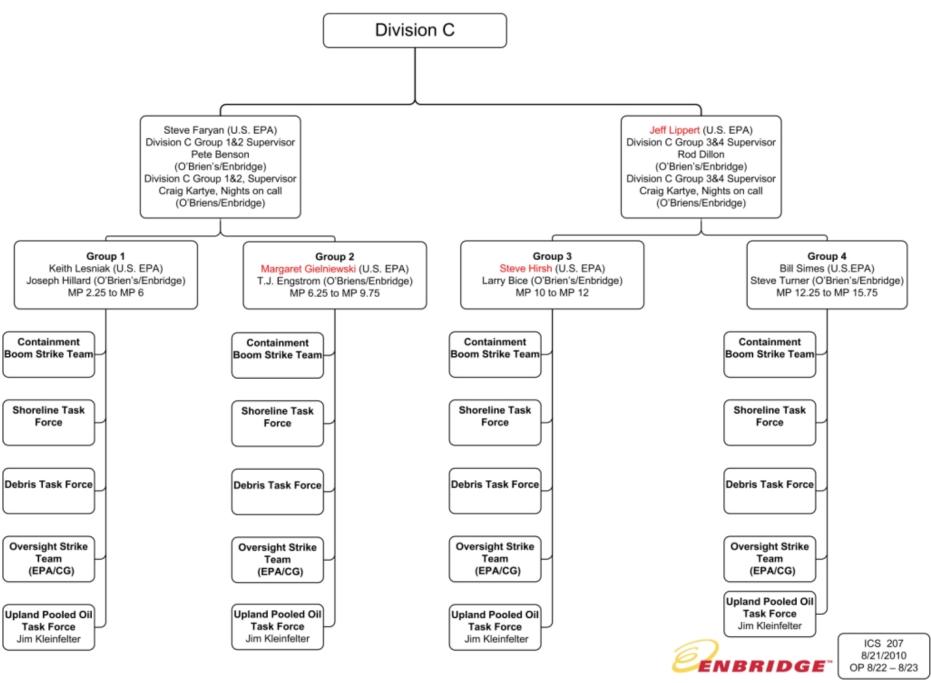






Operations





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